Root Cause Analysis
Investigation & Analysis Team Training

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Objectives

Discuss:

- Lab Director's high-level philosophy on Incident Analysis
- Goals of the Investigation & Analysis Process
- Team Roles & Responsibilities
- Elements of the Investigation & Analysis
- Causal Analysis Methodologies
- Quality Assurance of the Process

Lab Director Principles For Conducting Incident /Event Analyses at LBNL

In evaluating safety related incidents and other adverse events:

- We do not seek to blame individuals
- We look beyond the individual's actions to understand underlying organizational issues
- We seek to learn, in a timely manner, from both the positive as well as negative actions that occur
- We will promptly share what we learn so that others can benefit from our analyses
- Incident analysis will follow the same collaborative, analytical approach we use in our science
- Incident analysis will be supported by senior management and take place in a timely manner
- Incident analysis results will be openly made available to the Lab community

Goals of the Investigation & Analysis Process

- Division ownership of the analysis and outcome
- Timely and quality investigation and analysis
- Communication, collaboration and transparency throughout the process
- Corrective Actions to prevent Recurrence

Team Roles & Responsibilities

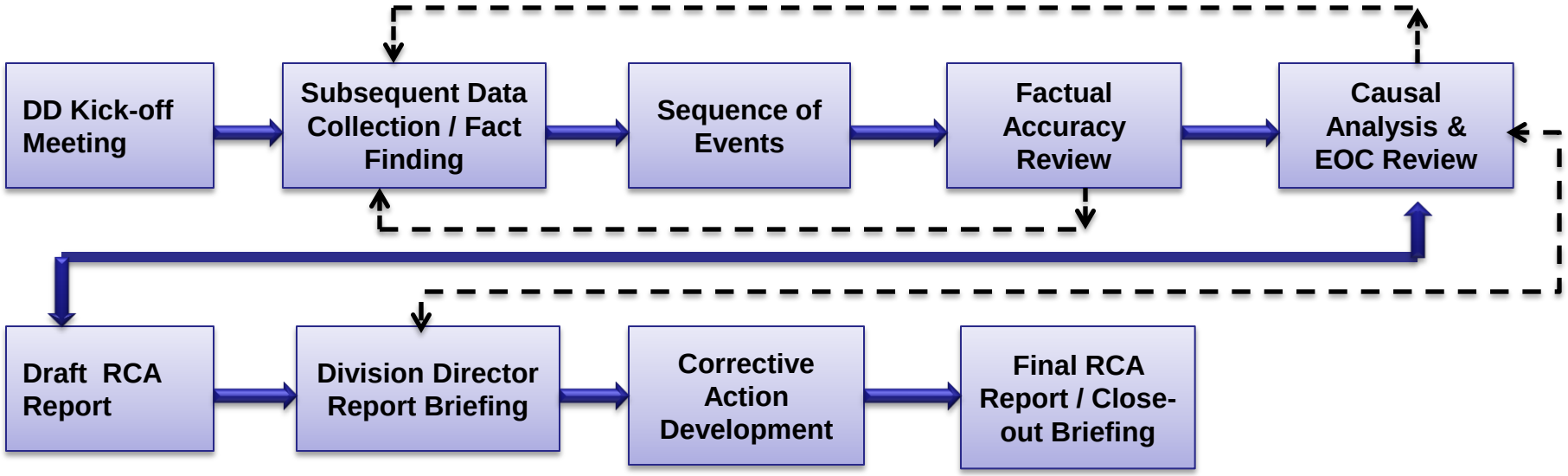
- **Team Lead** ***(Responsible Division Representative)***
- **Lead Causal Analyst** ***(Trained Root Cause Analyst)***
- **Team Members** ***(Subject Matter Experts)***

Reference: LBNL/PUB 5519(2), Causal Analysis Program Manual – Section 7.0

Observer Protocol

- Observers should defer to team members for primary interaction with the LBNL staff members and subcontractors that are undergoing the review.
- Observers must allow the team members to follow their lines of inquiry with the LBNL staff members and subcontractors that are undergoing the review.
- Observers are permitted to observe interviews as agreed to by the team, but should not pose questions unless invited to do so by the team.
- Observers are encouraged to participate in a team discussions, wherein observers will be asked to share thoughts.
- Observers must not attempt to influence or direct the team in their report deliberations or development.
- Observers are encouraged to participate in the development of lessons learned associated with each review.

The Investigation & Analysis Process



- Process is not sequential; activities may be concurrent and iterative
- Additional facts may be uncovered during the Causal Analysis and will need to be validated
- Questions may arise during the Division Director Report Briefing that may require additional analysis
- CAP Development may be iterative

Causal Analysis Methodologies

- **Core Methodologies**
  1) TapRooT® Incident Investigation System
  2) Barrier Analysis
  3) Five Whys Analysis (5-Whys)
  4) Human Performance Improvement (HPI) Analysis

- **Best Application**
  (Refer to Handout)

Reference: LBNL/PUB 5519(2), Causal Analysis Program Manual – Attachment 8

Quality Assurance

QA of the Process

"To ensure that the analysis, corrective actions and the formal report are credible, technically sound and accurate."

OCA staff interacts with the Team throughout the process:

- Begins with the Kick-Off Meeting and ends with the Final Report
- Provides immediate feedback and guidance as issues and deviations occur
- QA Reviewer comments/feedback must be addressed

Value Added:

Eliminates (or significantly minimizes) false starts and re-work

Summary

- Transparency, “buy-in” and partnership are the pillars of the process
- Trust / Allow the process to work as designed
- ***Remain Objective & Don’t Jump to Conclusions!***
- Guide: LBNL/PUB 5519(2), Causal Analysis Program Manual